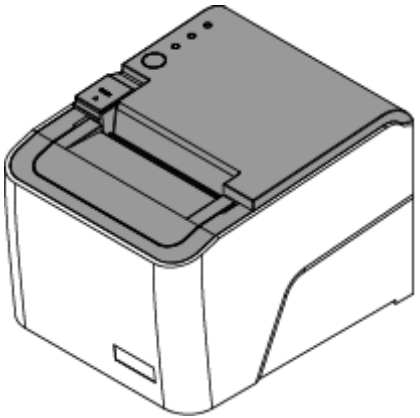
PRP-250

Thermal Receipt Printer

Instruction Manual



Save the user manual for future reference.

Contents

A. IMPORTANT SAFETY NOTIFICATION 1

B. PRODUCT OVERVIEW 3

Feature 4
Packing 5
Specification 6
Part Description 8

C. INSTALLING YOUR PRINTER 13

Connecting Your Printer 13
Control buttons & Indicator 14
Install/Replace the Paper Roll 16
Installing the Driver of the Printer 18
Printer Configuration 22
DIP Switch Configuration 28
Cutter Maintenance 30

D. APPENDIX 32

1. Interface PIN Assignment 32
2. Self Test 35
3. Virtual Serial Port Installation (for USB Connection Only) 36
4. Ethernet Connection and Configuration 45
5. Code Page Setup 62

A. Important Safety Notification

- Read the instruction manual carefully before use. Save the manual in the near location for further reference.
- Use only parts or accessories, especially power adapter, recommended by the manufacturer; unapproved parts may be hazardous and cause injures to the product or human.

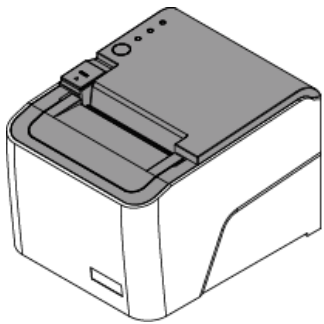
WARNING:
IF ANY FUNCTIONAL PROBLEMS OR DEFECTS OCCUR WHICH ARE ATTRIBUTABLE TO IMPROPER USE OF THE PRODUCT SHALL VOID THE WARRANTY.

- Refer servicing to qualified personnel only.
- Do not attempt to repair or dissemble the product on your own. Opening or removing cover can expose you to dangerous voltage or other hazards.
- Before plugging the power cord into the AC inlet of the power supply unit, make sure that the voltage applied to the power outlet is within the specified range (100V ~240V). Improper power source voltage range will cause damage to the power supply unit.
- Power off the product and remove the power adapter while cleaning the system.
- Before powering on the product, make sure all the connectors, cables are firmly installed.

Important Safety Notification

- Do not expose the product to rain or moisture, such as a bathtub, a washbowl, a kitchen sink, a laundry tub, and a swimming pool.
- Do not expose the machine under direct sunlight, and keep it away from any heat source.
- Do not place the product on an unstable location, stand or table. If the machine falls, it may injure a person or cause serious damage to the appliance.
- Do not allow anything to rest on the power cord.
  Do not locate the product where people may walk on the cord.
- Do not make the power outlet and extension cords overload. Overload can result in fire or electric shock.
- If any of the following situations occurs, unplug the product from the power outlet immediately and consult with a qualified service person:
  1. The power cord or plug is damaged or frayed.
  2. Liquid is spilled into the system.
  3. The product is dropped and damaged.
- Use a soft cloth to clean the product when it is dirty. In case the dirt is hard to remove, use a mild detergent and wipe the product gently.
  Turn OFF and unplug the product before cleaning.
- When the product is not in use, clean and stores it with care.

B. Product Overview



Thank you for choosing our PRP-250 thermal receipt printer. With the stylish design and Low-Noise mechanism, PRP-250 thermal receipt printer can perform high-quality printing yet perfectly fit into the nice and decoration on your location, and that with harmonious integrality to various POS System as well.

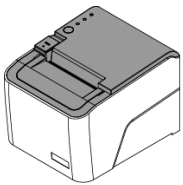
The Multi-I/O interfaces (USB/RS-232/RJ-45/RJ-11 or Parallel/USB/RJ-11) provide PRP-250 with good connectivity to various system or POS solutions.

Easy maintenance and fascinating high-speed performance, PRP-250 is the best choice of high-quality demand solutions.

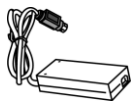
Feature

- Compact and Stylish Design
- Paper Auto-Cutter
- Multi-I/O Interface
  (Serial +Ethernet +USB or Parallel +USB type selectable)
- Cash drawer connection port (RJ-11)
- Compatible with ESC/POS print commands set
- Various Drivers support
- User friendly, drop-and-print paper installation, simple paper jam elimination
- Multiple Language fonts selectable
- DHCP Client mode support

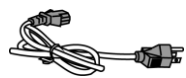
Packing



Printer Unit



Power Adaptor



***Power Cord**

****Printer Cable**

Paper Roll

Paper Roll Holder

Paper Width Guide

Manual

Utility CD

***** Power Cord is selectable depending on the types of electrical plug.

****** Printer cable is selectable depending on the interface required (RS-232, Parallel, USB, RJ-45 or Parallel port).

Please refer to the nearest local representatives for further information.

Specification

General		
Print Method		Thermal line printing
Print Speed		250mm/sec
Print Life		100 Km
Print Font	**(ASCII Mode)**	ANK Font. Font A: 12 x 24 dots, Font B: 9 x 17 dots
	Graphic Font)	Chinese Character: 24 x 24 dots
Print Resolution		576 dots/line or 512 dots/line
Print Font Character Support *		International Font, Big 5 Chinese, GB Chinese, Japanese, Korean selectable
Character Per Line		48 (Font A) / 64(Font B)
Effective Print Width		72mm
Paper Width		79.5mm± 0.5mm
Paper Roll Diameter		≦83mm
Paper Thickness		0.06~0.08mm
Driver		Win 9X/Win ME/Win 2000/ Win 2003/Win NT/Win XP/ Win Vista/Win 7, Win 8 compatible with EPSON and SAMSUNG
Print Command		ESC/POS print commands set

*** All specifications are subject to change without prior notice.**

Interface	
I/O Interface	Multi I/O Interface (Serial +Ethernet +USB or Parallel +USB available)
Cash Drawer	DC 24V/1A, 6-Wire RJ-11

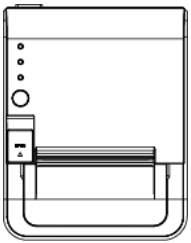
Notification	
Indicator	Audio and LED Indicators
Auto Cutter	Partial
Paper End Notice	Yes
Over-Heat Halt-on Protection	**Yes**

Others	
Power Input	24VDC/2.5A (External Adapter: 100~240VAC 50/60Hz)
Color	Red / White / Black
Compliance	FCC / CE / WEEE / RoHS
Weight	1400g (without cable)
Dimension (mm)	183.5(L) x 140(W) x 126(H)
Operating Temperature	0°C~45°C
Operating Humidity	10% ~ 80% RH, non-condensing
Storage Temperature	-10°C~ 60°C
Storage Humidity	10% ~ 90% RH non-condensing

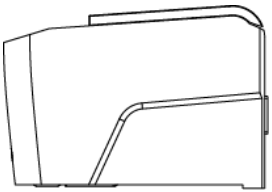
*** All specifications are subject to change without prior notice.**

Part Description

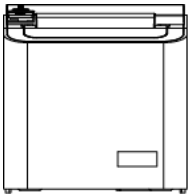
Product Views



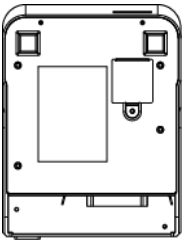
Top View



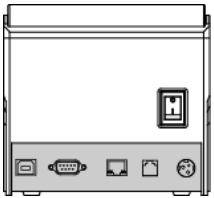
Side View



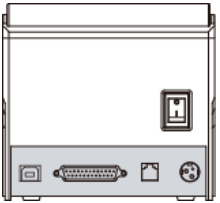
Front View



Bottom View

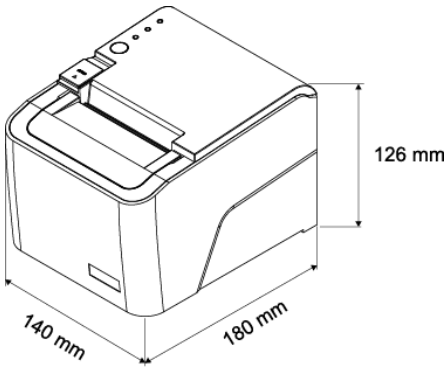


Rear View
(Serial/Ethernet/USB)

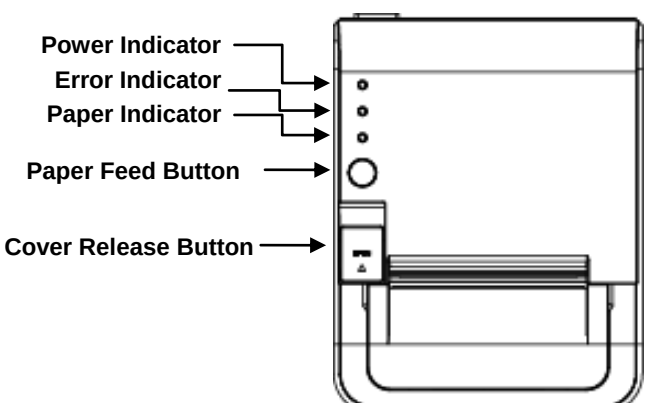


Rear View (Parallel)

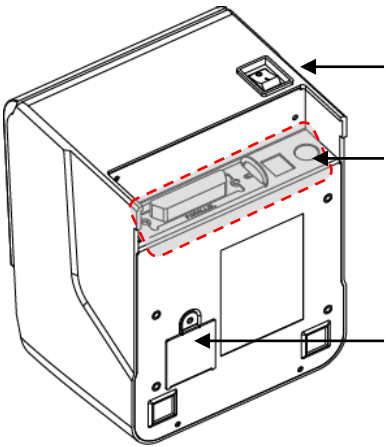
Dimensions



Control Buttons & Indicators

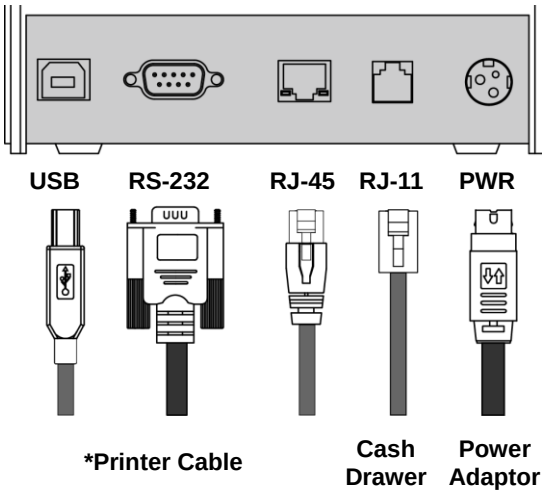


I/O Ports & Switches

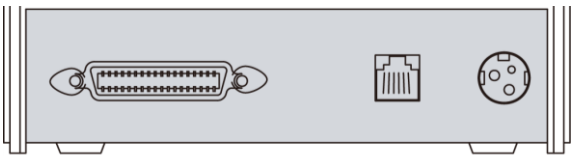


Multi-I/O Ports

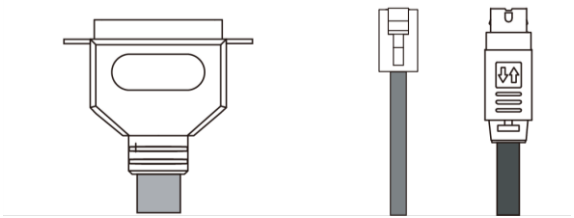
RS-232/USB/Ethernet Type



Parallel Type



Parallel Port **RJ-11** **PWR**

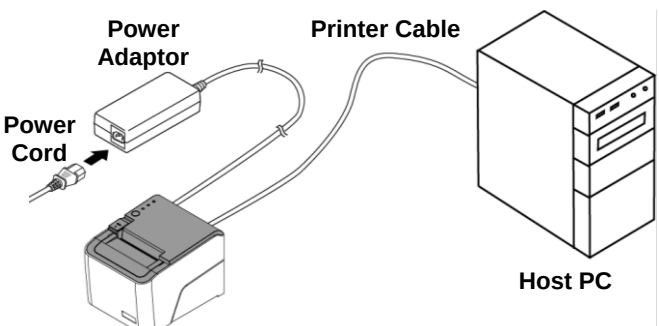


Printer Cable **Cash Drawer** **Power Adaptor**

C. Installing your Printer

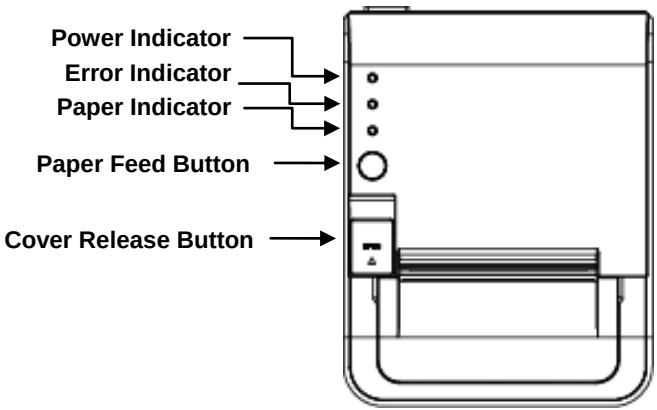
Connecting Your Printer

Please check the printer and the supplied accessories before Installation. It's recommended to read the entire instruction manual prior to the installation.



1. Place the printer on the designate location.
2. Plug the connector of Power Adaptor to the printer.
3. Use the supplied Printer Cable (RS-232, USB, RJ-45 or Parallel) and connect to the Host PC.
4. Plug the Power Cord to the Power Adaptor and then plug to the power outlet.
5. If there is a Cash Drawer to be connected, connect the RJ-11 cable to the printer.

Control buttons & Indicator



Control Buttons

Paper Feed:

This function is to advance the paper.
Press the key and the paper advances by a single line.
Press and hold the key for over 3 seconds and the paper advances by multiple lines.

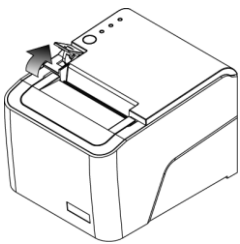
Cover Release Button:
Press to open the printer cover.

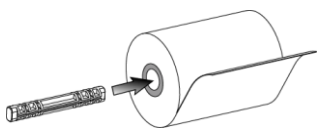
Indicator Status

Indicator	Status	Description
Power	●	Power Off
	●	Power On
Error	●	Printer Error (Out of paper, Printer head over heat, or paper cutter error)
Paper	●	Out of paper * The Error Indicator is lit as well

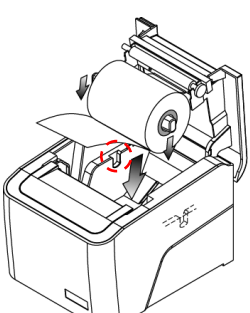
Install/Replace the Paper Roll

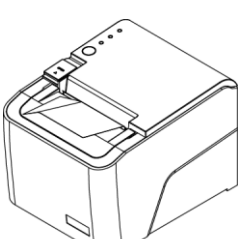
1. Pull the Cover Release Button to open the Cover.
2. Pass the Paper Roll Holder through the Receipt Paper Roll.





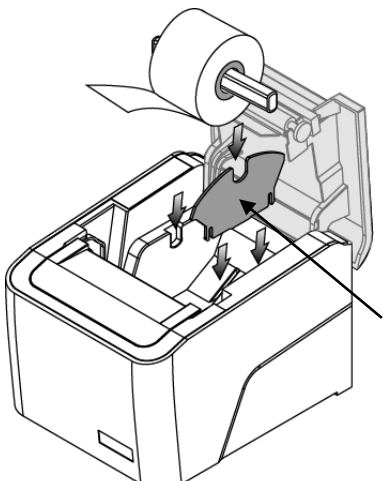
3. Roll out and install the Paper Roll with Holder into the Printer. (with the edges of the holder fitted onto the holder slots)
4. Replace the Cover and tear out the paper.





Install the Paper Width Guide

When using a paper roll in smaller width, install the Paper Width Guide first, and then install the paper roll with holder.



Installing the Driver of the Printer

Before installing the driver of your printer, make sure the printer is properly connected to the host PC.

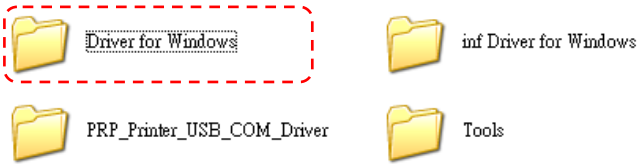
Place the supplied Utility CD into the CD-ROM drive. Browse the CD and open the folder “Receipt Printer” to install the required software.

Note: For USB Interface Installation

Please refer to “**Appendix”** and install the Virtual COM driver **(**page 36) prior to the Installation of Printer Driver.

To install the driver of the printer:

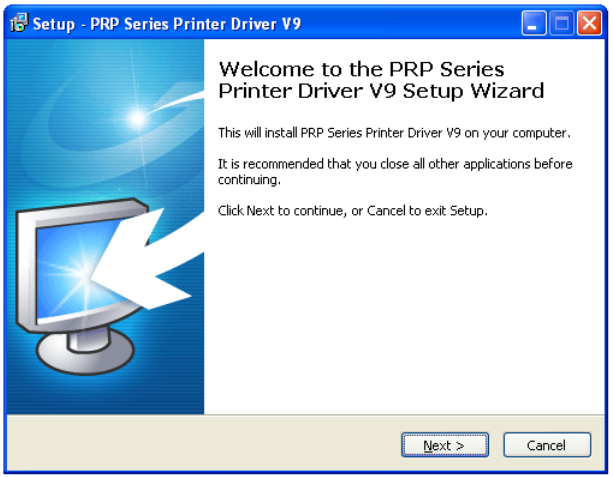
1. Select the folder “Driver for Windows”.



2. Select the subfolder to access the driver suitable for the operating system.
   (For example: select “Win2000_XP_Vista_7_x32&x64” for Windows XP version).

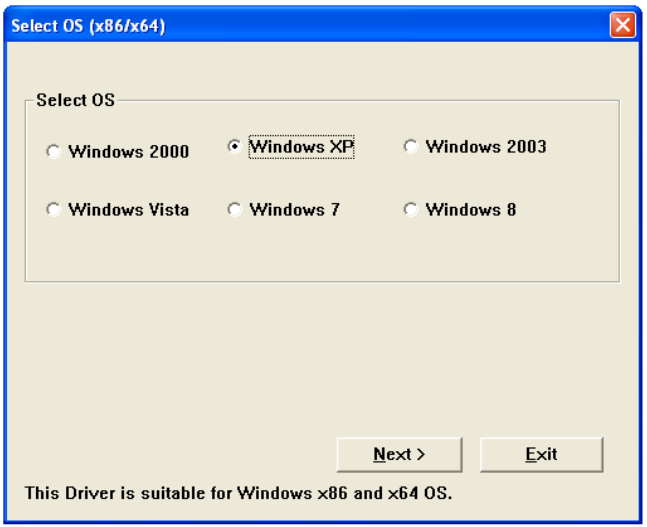
3. Double click the icon “PRPDRVEN V9.EXE” to initiate the installation.

4. Click “Next” to continue.


Setup - PRP Series Printer Driver V9
Welcome to the PRP Series Printer Driver V9 Setup Wizard
This will install PRP Series Printer Driver V9 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

5. Select the Operating System.

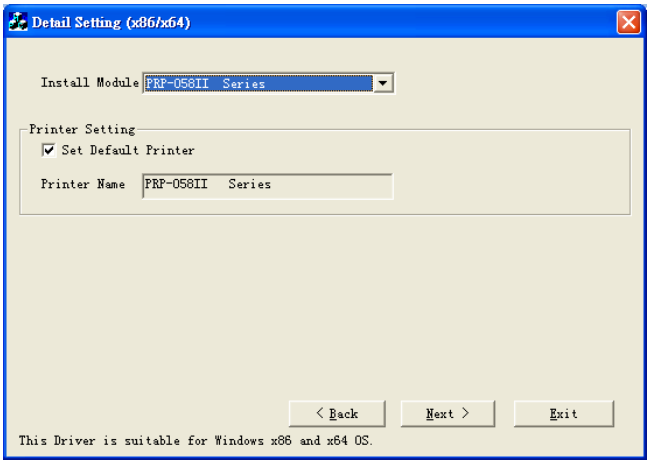
(For example: select “Windows XP” for Windows XP version). Click “Next” to continue.



Printer Configuration

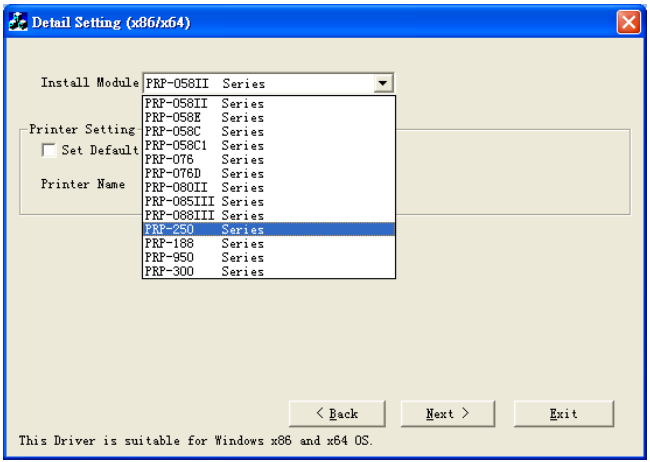
This menu allows user to configure the printer according to the model number.

Please refer to the steps below to complete the configuration.



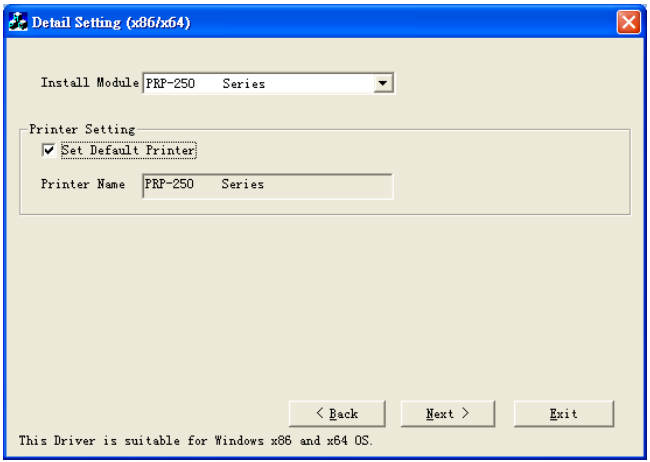
1. **Select Module Number:**

Select the proper Printer Model Number



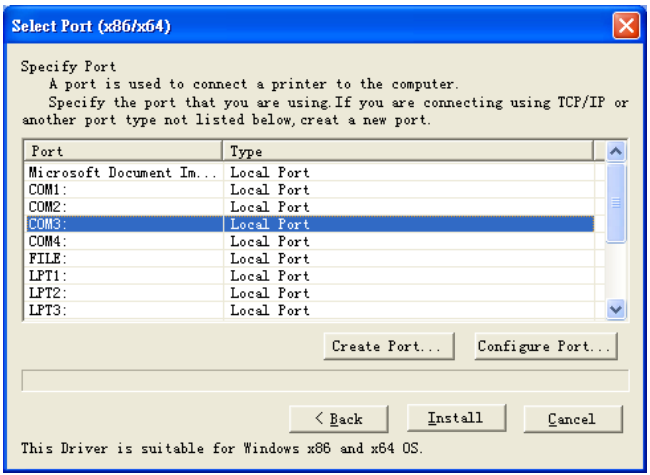
2. **Default Printer Setting:**
   To set the printer as the default printer, click the checkbox to confirm.

   Click “Next” to continue.



3. Printer Interface Setting:

Select the communication interface
(COM port number or LPT port number).
Click “Install” to complete the installation.



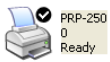
4. **Configuration Completed.**

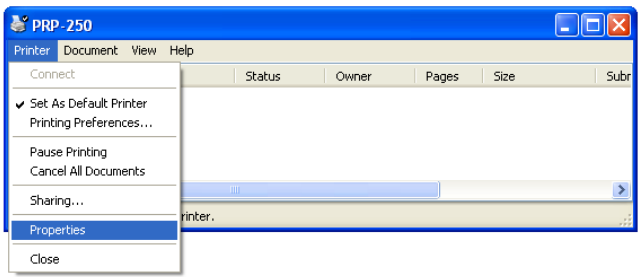
Click “Finish” to exit the menu.

5. Port Setting:

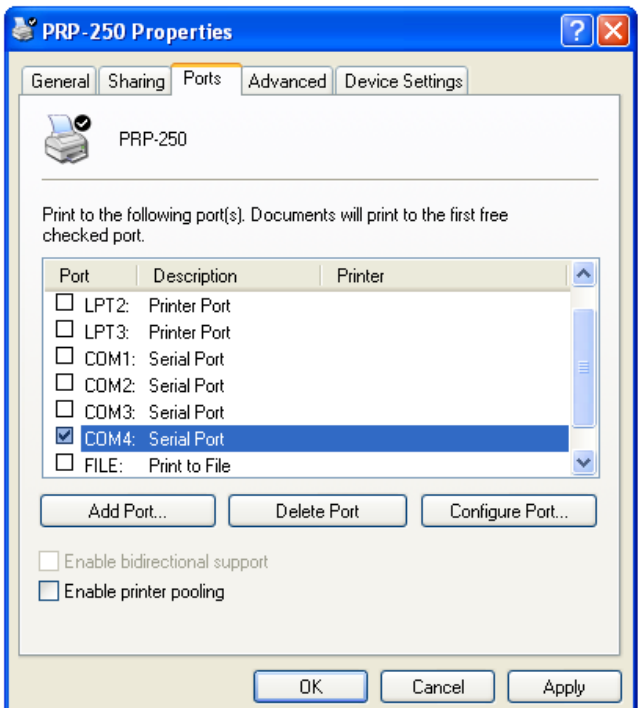
Remember to access the properties of your printer (Start>>Printers and Faxes>> and double-click the icon to enter).

Make sure the port of printer is correctly configured.





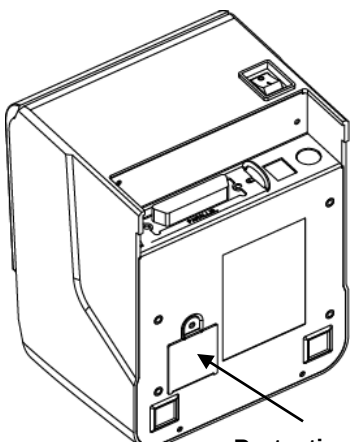
Access sub menu “**Ports**”**,** and click to select the correct port for your printer.
Click “OK” to exit.



DIP Switch Configuration

To change the setting of the printer manually:

1. Turn off the printer.
2. Loosen the securing screw on the bottom of the printer.
3. Remove the protective cover of the DIP Switches.



DIP Switch Setting

DIP	Function	ON	OFF
1	Paper Cutter	No	Yes*
2	Audio Alarm	Yes *	No
3	Print Density	Dark	Light *
4	Two-byte Character Code	*No	Yes
5	Character Per Line	42	48 *
6	Cutter with Cash Drawer	Yes	No *
7 & 8	Baud Rate Setting	---	OFF*

The “*” mark indicates the default value of each setting.

Baud Rate Setting (DIP 7, DIP 8)

19200
(*Default)

9600

115200

38400

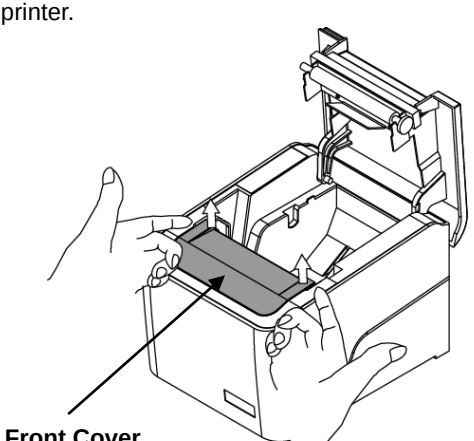
Cutter Maintenance

In general, the printer will initial and reset the cutter when turn on the power. To reset the cutter back to the initial position:

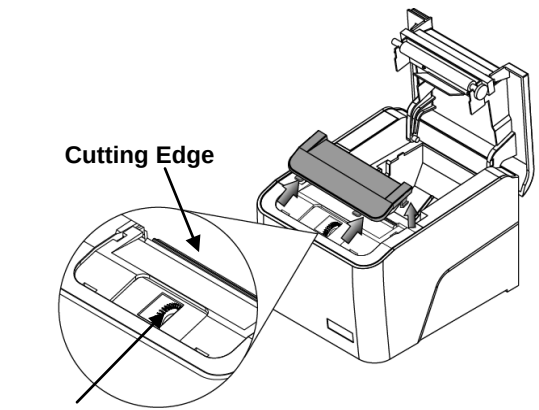
1. Turn off the printer.
2. Turn on the printer and the printer will initial and reset the cutter.

User can manually reset the cutter back to initial position (as instruction below illustrated):

1. Pull the Cover Release Button to open the Cover.
2. Slightly pull up the Front Cover and remove it from the printer.



3. There is an Adjustment Gear in the cutter.
   Turn the Adjustment Gear to move the cutter back to the position.



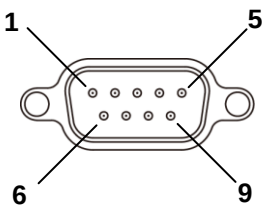
Note: Do not remove the protective cover with force or it may damage the cutter or printer head.

Warning: Beware of the Cutting Edge during maintenance in order to avoid injury to the person near the printer.

D. Appendix

1. Interface PIN Assignment

- **RS-232 Pin Assignment**



Pin	Signal	Description
1	N.C.	---
2	TXD	XON/XOF Handshake (Control codes transmission).
3	RXD	Data transmission (the printer receives data from the HOST)
4	N.C.	---
5	GND	Ground
6	DTR	Printer Status
7	N.C.	---
8	RTS.	Printer Status
9	N.C.	---

- **Parallel Pin Assignment**

Pin	Signal	Signal Source	Description
1	/STB	HOST	The HOST (computer) presents the data on the data lines and pulses STB.
2	DATA0	HOST	Indicates Data Bit 0 ~ Data Bit 7 (8 bits)
3	DATA1		
4	DATA2		
5	DATA3		
6	DATA4		
7	DATA5		
8	DATA6		
9	DATA7		
10	nAck	Printer	Acknowledge Signal (Indicates that the printer has received the data successfully and ready to receive the next data).
11	BUSY	Printer	Printer is busy and cannot receive data from the HOST.
12	PE	Printer	Printer Paper is out.
13	Select	Printer	High electric potential.
14, 15	N.C.	---	---
16, 17	GND	---	Ground
18	Logic-H	Printer	High electric potential.
19 ~ 30	GND	---	Ground
31	N.C.	---	---
32	nFault	Printer	Printer Error Signal
33	GND	---	Ground
34 ~ 36	N.C.	---	---

- **RJ-11 Pin Assignment**

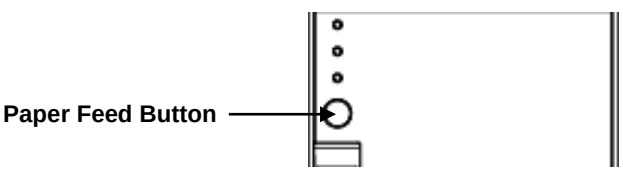
Pin	Signal	Signal Direction	Description
1	Ground	---	Frame Ground
2	Cash Drawer Kick Out Signal 1	Output	---
3	Cash Drawer Status	Input	Open/Close
4	+VDC 24v	---	---
5	Cash Drawer Kick Out Signal 2	Output	---
6	GND	---	Signal Ground

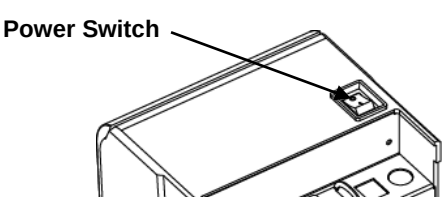
2. Self Test

This function allows user to perform self-test and print out the settings of the printer unit:

1. Turn off the printer.
2. Press and hold the Paper Feed Button.
3. Turn on the Power Switch of the printer.
4. Release the Paper Feed Button.

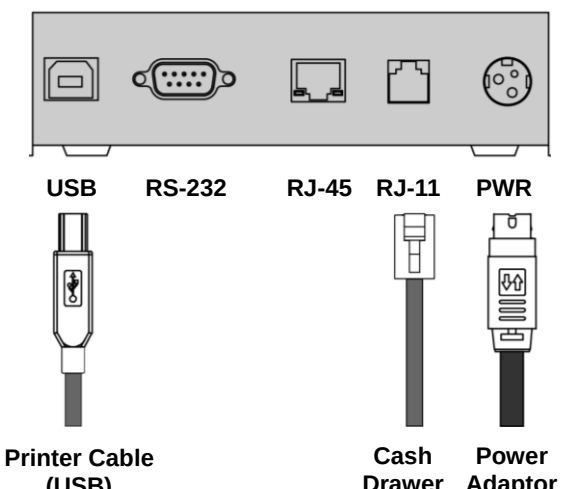
The Indicators would blink and then the printer starts printing out the self-test data.



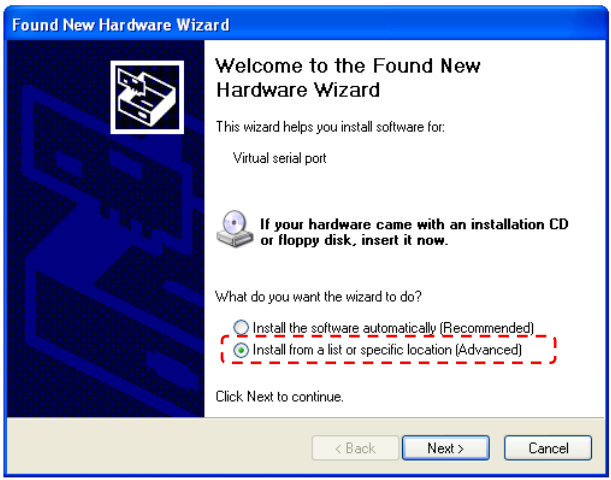


3. Virtual Serial Port Installation (for USB Connection Only)

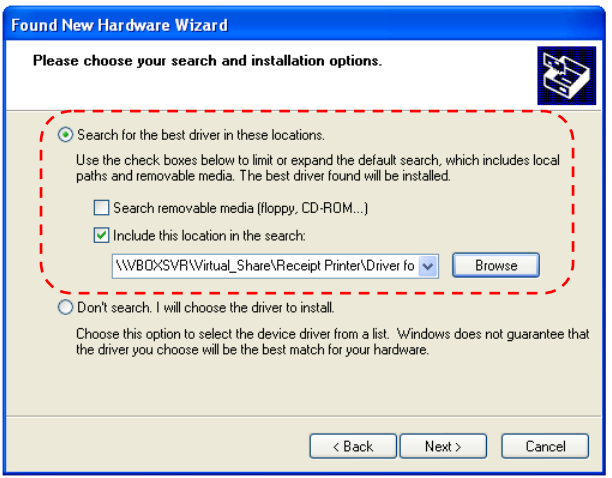
When connect the receipt printer to the computer with USB cable, turn on the computer and the system will found a new hardware automatically and then initiate the Found New Hardware Wizard automatically (as image below illustrated):



1. Found New Hardware Wizard is initiated; click “Install from a specific location (Advanced) and then click “Next” to continue.

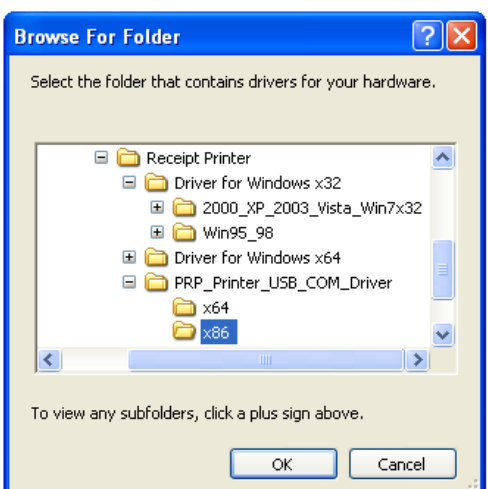

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Virtual serial port
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

2. To specify the location of driver, click “include this location in the search and “Browse” the specified folder manually.

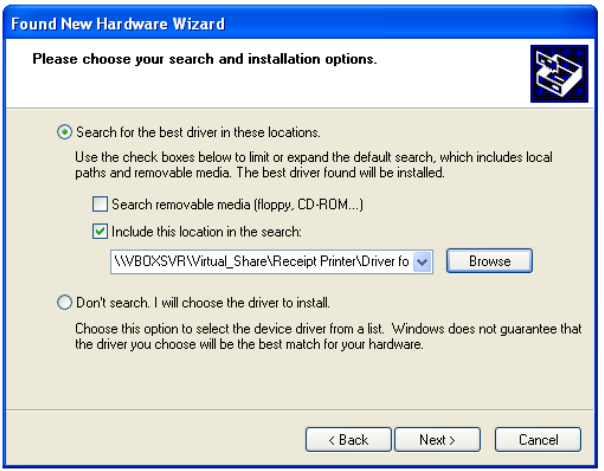

Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
\\VBOXSVR\Virtual_Share\Receipt Printer\Driver fo
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

3. Browse the subfolder of the path:" \\Receipt Printer\PRP_Printer_USB_COM_Driver" (x86 for Windows XP 32 bit version).

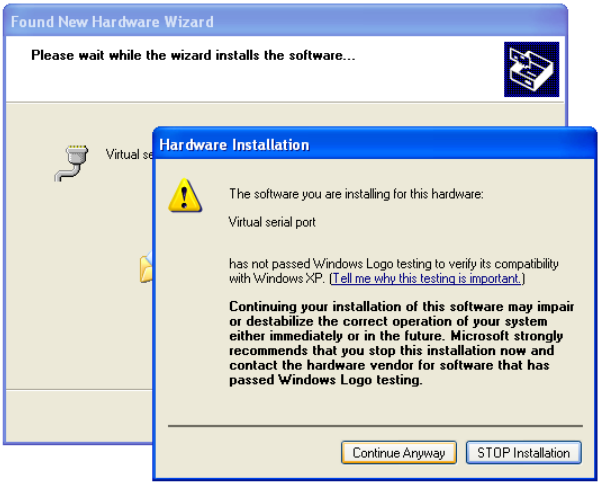
   Click "OK" to continue.



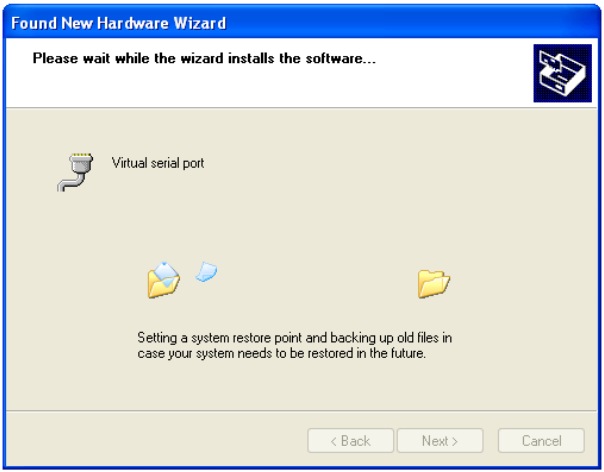
4. As the location of the driver is specified.
Click “Next” to continue.


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
\\VBOXSVR\Virtual_Share\Receipt Printer\Driver fo
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

5. Start Notification. Click “Continue Anyway” to continue.

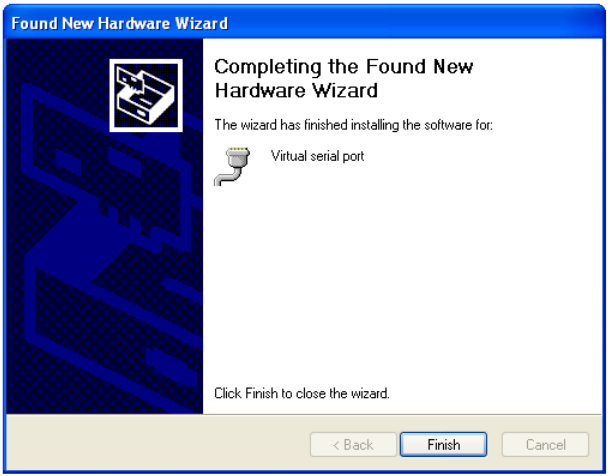

Found New Hardware Wizard
Please wait while the wizard installs the software...
Hardware Installation
The software you are installing for this hardware:
Virtual serial port
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

6. The wizard is installing the driver.

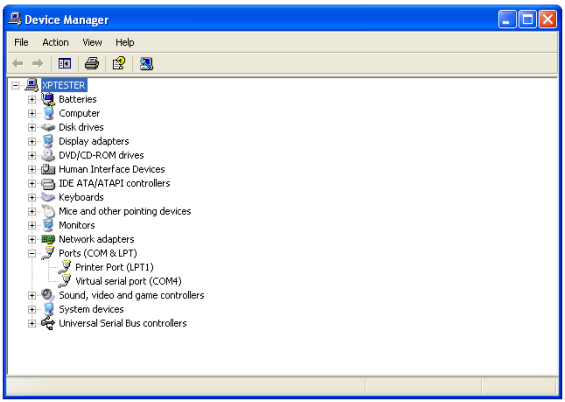

Found New Hardware Wizard
Please wait while the wizard installs the software...
Virtual serial port
Setting a system restore point and backing up old files in case your system needs to be restored in the future.
< Back
Next >
Cancel

7. The driver of Virtual Serial Port is successfully installed. Click “Finish” to exit.

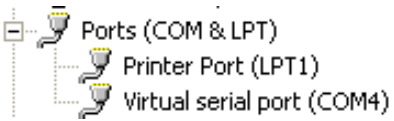
Note: Reboot the HOST PC
It’s recommended to reboot the HOST PC and proceed to the next step.



8. The Virtual COM port activates automatically when the printer is switched on.
   You can Access
   “My Computer>>Proprieties>>Hardware>>Device Manager>> Ports (COM & LPT)” and see the Virtual COM Port Number.



When turn on the printer, the Virtual COM activates automatically (Virtual Serial Port).

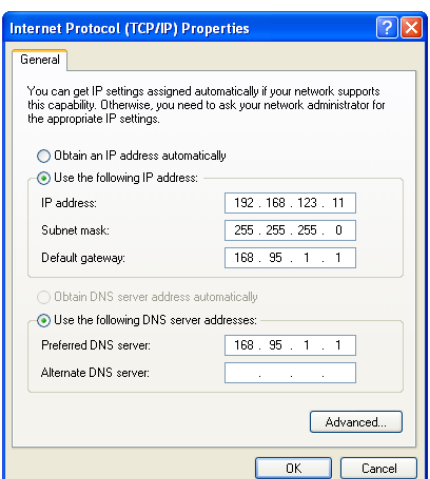


4. Ethernet Connection and Configuration

When connecting the printer to the Host PC, you can:

1. **Direct Cable Connection:**
   Use the supplied Ethernet crossover cable to create a direct cable connection to your Host PC.

   Note:
   Be sure to assign the IP address of the Host PC under the same subnet as your Printer
   e.g.: Printer: **192.168.123.**100
   Host: **192.168.123.**xxx


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 123 . 11
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 168 . 95 . 1 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 168 . 95 . 1 . 1
Alternate DNS server:
Advanced...
OK
Cancel

Assign the IP address of the Host PC (Direct Cable Connection)

2. **DHCP Client Connection**:

Connect the printer to the Local Net work (via HUB) with a standard Ethernet Cable.
The DHCP server will assign an IP address to the printer.

Be sure to configure the printer to the **DHCP Client Mode** before install the printer to the Local Network.

Note:
It's recommended to consult the MIS personnel relating to the information about the Local Network and IP address assignment.

● Acquire the IP address of the Printer

You can perform Self-Test of the printer and acquire the IP address of the printer.

■ Fixed IP Setting (Default)

If a fixed IP address is assigned to the printer,
perform the self-test and the printer will print out the data.

Protocols:	TCP/IP (A1)
Mac address:	X-XXX-XXX-XX
IP address:	192.168.123.100
Netmask:	255.255.255.0
Gateway:	192.168.1.1
DHCP:	Disabled

Print out the Self-test data

Note:
The default IP address is 192.168.123.100

■ DHCP Client Mode

If the printer is set to DHCP Client mode, the DHCP server will assigned an IP address to the printer when connecting to the local network.

Perform the self-test and the printer will print out the test data; then the printer will stand by to receive the IP address from the DHCP server.

As the IP address is assigned to the printer and configuration is completed, the printer will print out the assign IP address.

Ethernet is configuring…	
Mac address:	X-XXX-XXX-XX
IP address:	168.95.XXX.XXX
Netmask:	255.255.255.0
Gateway:	192.168.1.1
DHCP:	Enabled
DHCP Timeout (s) : 90	

Note:
The printer will be set to the default IP address (192.168.123.100) when there is not any IP address assigned to the printer (DHCP timeout is 90 seconds).

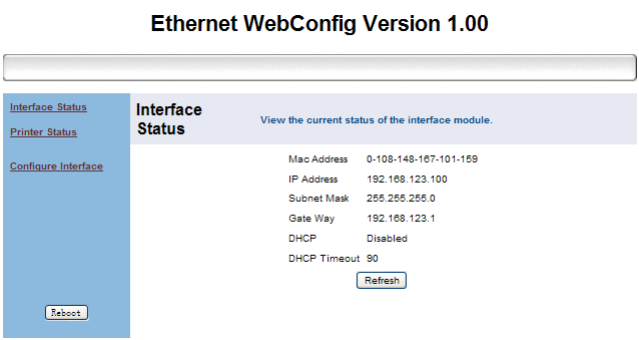
● IP Reconfiguration

You can open the web-browser and type the IP address to access the **Ethernet WebConfig** utility.

Note:
When first re-configuring the IP address of the printer, you may need to use the supplied Ethernet crossover cable to establish a direct cable connection to your Host PC and start IP re-configuration.

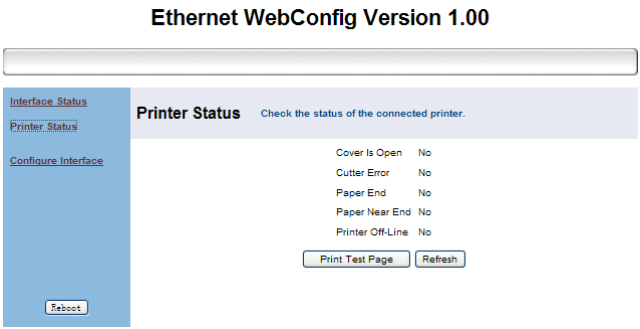
■ Interface Status

This menu displays the current configuration data of the printer. Click “Refresh” to acquire the newest data.



■ Printer Status

This menu displays the printer status and can perform print test.



■ Configure Interface

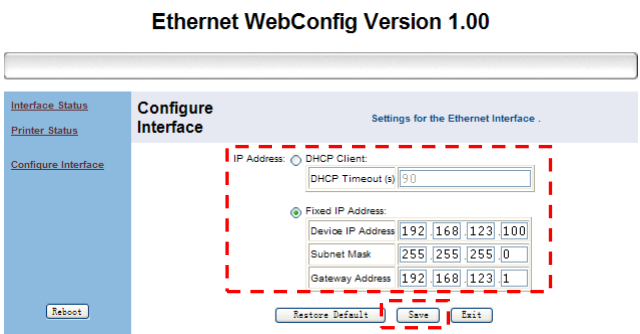
This menu can change the IP address of the printer.

To change the IP address.

1. Type the new IP address and click “Save” button. User can set to “DHCP Client” to enable the DHCP mode.

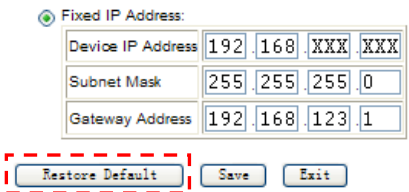
   Note: DHCP Timeout
   The DHCP time out is configurable from 14 sec to 90 sec.

2. Click “Reboot” button to re-initiate the printer.



Note: Restore Default Configuration

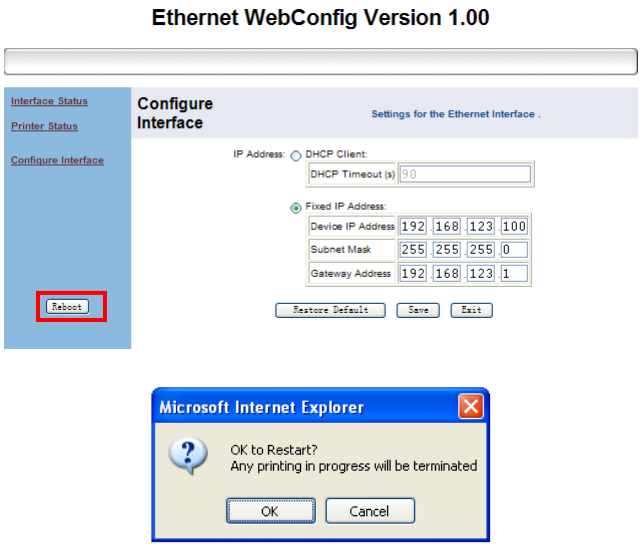
You can click “Restore Default” button to retrieve the factory IP configuration data of the printer.
(IP Address: 192.168.123.100)



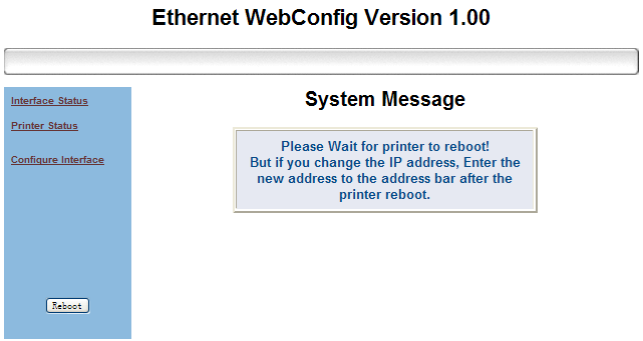
■ Reboot

This function can re-initiate the printer and apply the new configuration.

1. Click the “Reboot” button to re-initiate the printer. Click “OK” to proceed.



2. The Printer is initiating.


Ethernet WebConfig Version 1.00
Interface Status
Printer Status
Configure Interface
Reboot
System Message
Please Wait for printer to reboot!
But if you change the IP address, Enter the new address to the address bar after the printer reboot.

3. Printer is initiated successfully.

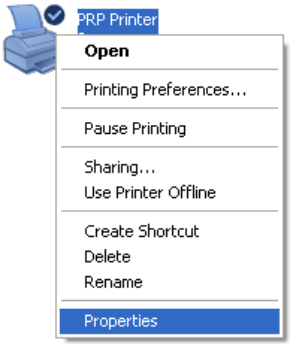
Note:

Be sure to access the printer using the new IP address after reboot the printer.

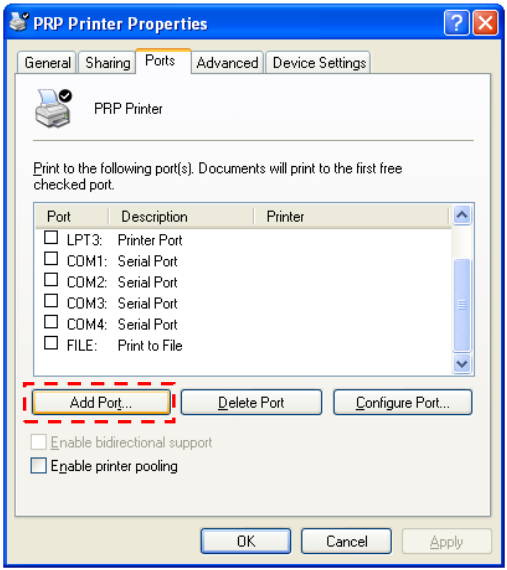
- **Setup the TCP/IP Printer Port**

After the IP address of the printer is re-configured, you can install the printer driver and setup the printer port of your printer.

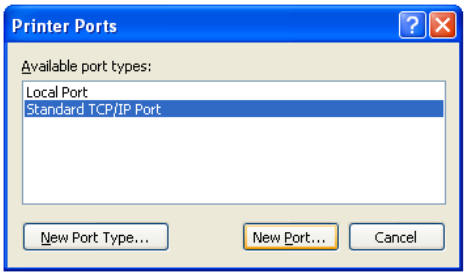
1. Access “Start>>Printer and Faxes>> Printer properties.



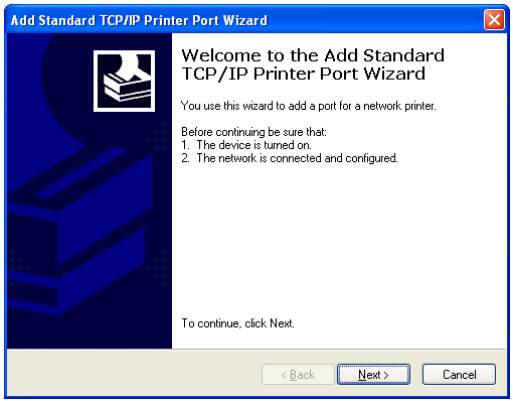
2. Access submenu “Port” and click “Add Port”.



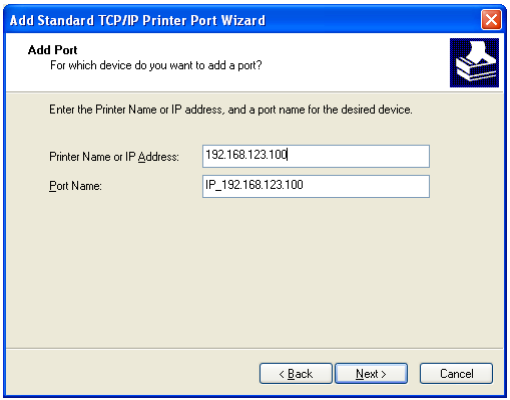
3. Select “Standard TCP/IP Port” and click “New Port..” and proceed.



4. Add TCP/IP Print Port Wizard initiated.
Click “Next” to continue.

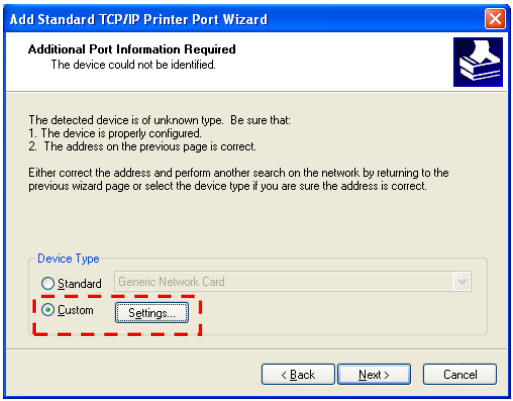

Add Standard TCP/IP Printer Port Wizard
Welcome to the Add Standard TCP/IP Printer Port Wizard
You use this wizard to add a port for a network printer.
Before continuing be sure that:
1. The device is turned on.
2. The network is connected and configured.
To continue, click Next.
< Back
Next >
Cancel

5. Enter the IP address of the Printer then proceed.


Add Standard TCP/IP Printer Port Wizard
Add Port
For which device do you want to add a port?
Enter the Printer Name or IP address, and a port name for the desired device.
Printer Name or IP Address:
192.168.123.100
Port Name:
IP_192.168.123.100
< Back
Next >
Cancel

6. **Additional Port Information.**

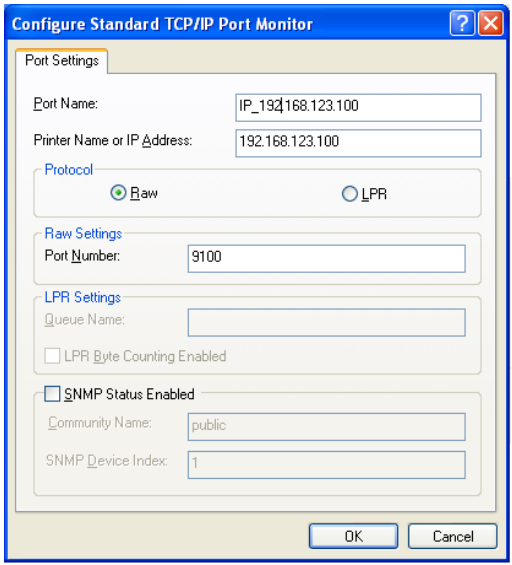
Select “Custom” and click “Setting” to continue.


Add Standard TCP/IP Printer Port Wizard
Additional Port Information Required
The device could not be identified.
The detected device is of unknown type. Be sure that:
1. The device is properly configured.
2. The address on the previous page is correct.
Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.
Device Type
Standard
Generic Network Card
Custom
Settings...
< Back
Next >
Cancel

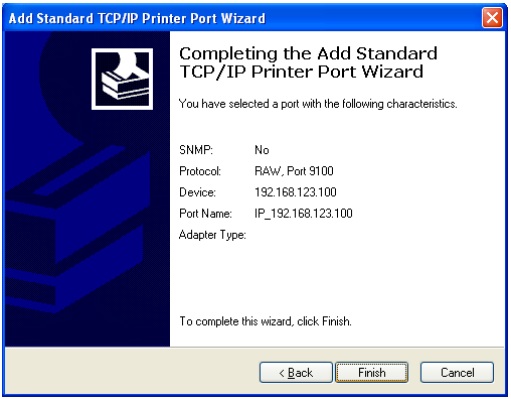
7. **Port Setting.**

Please examine the IP address should be the same to the Printer.

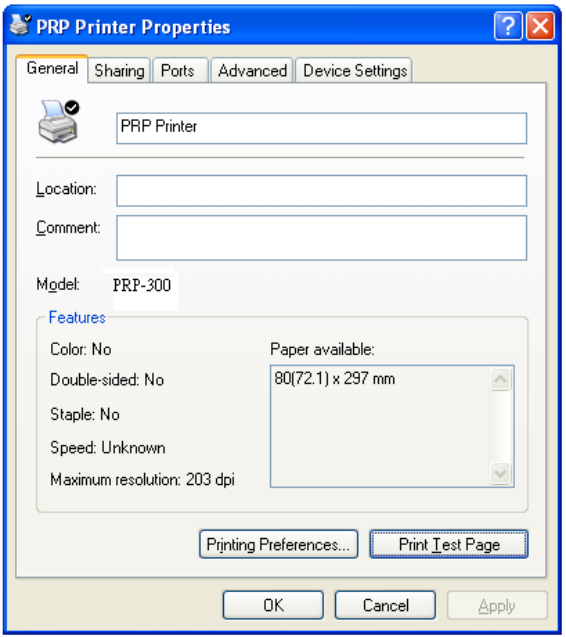
Select the protocol “Raw” and click “OK” to continue.



8. Click “Finish” to complete.



9. You can exit the setting menu and open the printer properties to perform print test. Click “Print Test Page” to perform the test.

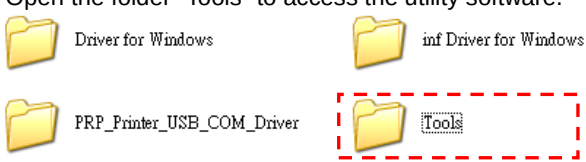


5. Code Page Setup

Place the supplied Utility CD into the CD-ROM drive.

1. Browse the CD and open the folder “Receipt Printer” to install the required software.

2. Open the folder “Tools” to access the utility software.



3. Click the folder “SetCodePage” to access the software

4. Double click the icon “Setup.EXE” to initial installation. Follow the instructions to install the utility.

- **Code Page Setup Utility**

This utility can help user to setup the code page of the printer.

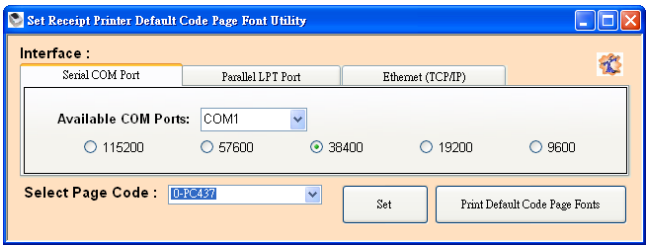
Note: Before Setup

It may need to re-configure the printer prior to the codepage setup (e.g.: DIP switch).
It's recommended to consult the technical personnel relating to the information about the code page and application.

- **Interface**

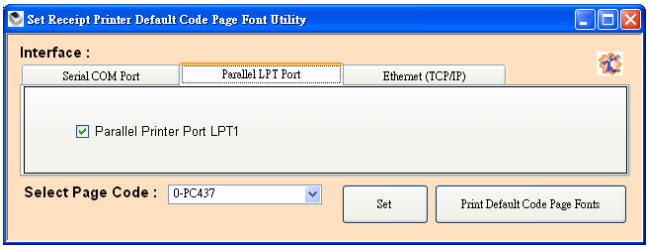
User can establish communication with printer via this menu. Select the proper submenu by the connection type of the printer.

For Serial COM Port:
Select the proper COM port and baud rate to establish communication.



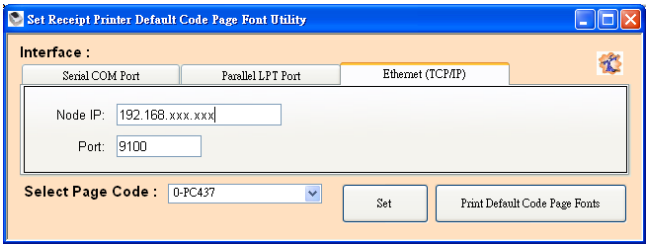
For Parallel LPT Port:

Select LPT1 as the printer port to establish communication.



For Ethernet (TCP/IP):

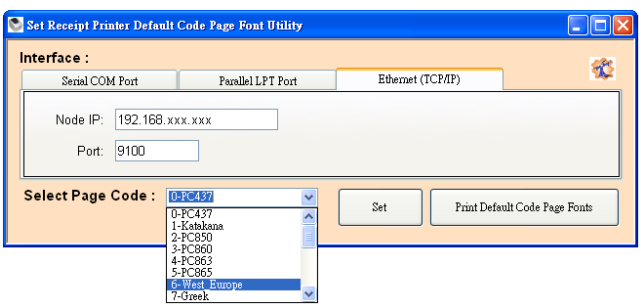
Enter the IP address of the printer to establish the communication.



■ Select Page Code

To select the codepage desired:

1. Make sure to the DIP switch 4 of the printer is set **ON** (please refer to DIP Switch Configuration for further information).
2. Go to the scroll menu and select the preset codepage desired.
   User can enter the codepage number into the field manually. (Please refer to the printed Self-Test page for the code number support).
3. Click “Set” button to confirm the setting.



4. **Re-initiate the Printer:**
   Be sure to **Turn-Off and Turn-On** the printer again to initiate the printer with new codepage setting.
   (User can perform the self-test again to exam the new codepage setting)